

## **No. 6-2007 MONTHLY PACIFIC ENSO DISCUSSION FOR MICRONESIA AND AMERICAN SAMOA**

**June 2007**

The Pacific ENSO Applications Center (PEAC) disseminated the second quarter 2007 newsletter (refer to <http://www.soest.hawaii.edu/MET/Enso.html>). The third quarter newsletter is being prepared. The Climate Prediction Center (CPC) stated the following in its June 7, 2007 *ENSO Diagnostic Discussion* (refer to <http://www.cpc.ncep.noaa.gov>): “A transition from ENSO-neutral to La Niña conditions is possible during the next 1-3 months.” In addition, the CPC noted: “ENSO-neutral conditions continued in the tropical Pacific during May 2007, with average to below-average sea surface temperatures (SSTs) extending from the date line to the west coast of South America. The CPC also noted: The upper ocean heat content (average temperatures in the upper 300 m of the ocean) remained below average across the central and east-central equatorial Pacific, with temperatures at thermocline depth generally 1°-4°C below average.” Regional observations indicated stronger than normal trade winds in the central equatorial Pacific and suppressed cloudiness east of the date line. The CPC concludes: “Collectively, these atmospheric and oceanic conditions continue to indicate that La Niña conditions could develop over the next 1-3 months.”

Nearly all of the latest climate forecast models predict a continued pattern of below-average equatorial SSTs in the central Pacific during the next several months. While climate model skill is usually degraded during the March-May timeframe, it should improve over the remaining months of the year. Climate models also suggest normal to above-normal rainfall over the next 3 months for virtually all of the islands. CPC concludes that: “Historically, the next couple of months are a critical time period for the possible emergence of La Niña.”

The El Niño-related drought in the western North Pacific ended rather abruptly in late March. Conditions in the region now exhibit an ENSO-neutral pattern. Rainfall has returned to near-normal over most areas, including the Mariana Islands and the Marshall Islands. American Samoa will not likely see any additional tropical cyclone activity this season. The South Pacific Convergence Zone has been fairly active over the Samoa region, keeping conditions wetter than expected.

The Tropical Upper Tropospheric Trough (TUTT) has become well-entrenched north of the Marshall Islands and across the Mariana Islands. Favorable upper-level winds have increased rainfall over the Marshalls, but the lack of deep convection associated with the TUTT has brought a couple of weeks of very dry weather to the Marianas. In this ENSO-neutral regime, all areas can expect high month-to-month variability in rainfall. For the last few weeks, easterly trade winds have been affecting all of Micronesia; thus, tropical cyclone activity has been low. This could change at any time, as the monsoon trough should begin to push into at least the western part of the region. The trade winds and sub-surface heating in the western North Pacific will keep sea levels above normal.

PREPARED BY NOAA'S NATIONAL WEATHER SERVICE  
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